

In the Claims

Please amend the claims as follows. Applicant has included herewith a complete claim set with insertions and deletions indicated by underlining and strikethrough, respectively.

1-53. (Canceled)

54. (Currently amended) An isolated nucleic acid molecule comprising a nucleic acid molecule selected from the group consisting of (a) complements of nucleic acid molecules which hybridize under stringent conditions to a molecule consisting of a nucleic acid sequence as set forth as SEQ ID NO:23, and which codes for a cancer associated antigen precursor, and (b) nucleic acid molecules that differ from the nucleic acid molecules of (a) in codon sequence due to the degeneracy of the genetic code, ~~and (c) complements of (a) or (b),~~

wherein the stringent conditions are hybridization at 65°C in hybridization buffer (3.5 x SSC, 0.02% Ficoll, 0.02% polyvinyl pyrrolidone, 0.02% Bovine Serum Albumin, 2.5mM NaH₂PO₄(pH7), 0.5% SDS, 2mM EDTA) and wherein SSC is 0.15M sodium chloride/0.015M sodium citrate, pH7; SDS is sodium dodecyl sulphate; and EDTA is ethylenediaminetetracetic acid.

55. (Canceled)

56. (Previously presented) An isolated nucleic acid molecule selected from the group consisting of

(a) a fragment of a nucleic acid molecule having a nucleotide sequence as set forth as SEQ ID NO:23, of at least 8 nucleotides,

(b) full length complements of (a),

provided that the isolated nucleic acid molecule includes a sequence of contiguous nucleotides which is not identical to the nucleic acid sequence represented by SEQ ID NO:33.

57-59. (Canceled)

60. (Previously presented) An isolated expression vector comprising an isolated nucleic acid molecule of claim 54 operably linked to a promoter.

61. (Canceled)

62. (Currently amended) An isolated expression vector comprising a nucleic acid molecule of claim ~~45~~ 54 and a nucleic acid encoding a MHC molecule.

63. (Canceled)

64. (Previously presented) An isolated host cell transformed or transfected with an expression vector of claim 60.

65. (Canceled)

66. (Previously presented) An isolated host cell transformed or transfected with an expression vector of claim 60 and further comprising a nucleic acid encoding a MHC molecule.

67-75. (Canceled)

76. (Previously presented) A kit for detecting the presence of the expression of a cancer associated antigen precursor comprising

a pair of isolated nucleic acid molecules each of which consists essentially of a molecule selected from the group consisting of (a) a 12-32 nucleotide contiguous segment of the nucleotide sequence of a nucleic acid molecule which hybridizes under stringent conditions to a molecule consisting of a nucleic acid sequence as set forth as SEQ ID NO:23 and which codes for a cancer associated antigen precursor, (b) nucleic acid molecules that differ from the nucleic acid molecules of (a) in codon sequence due to the degeneracy of the genetic code and (c) complements of (a), wherein the pair of isolated nucleic acid molecules do not overlap each other,

wherein the stringent conditions are hybridization at 65°C in hybridization buffer (3.5 x SSC, 0.02% Ficoll, 0.02% polyvinyl pyrrolidone, 0.02% Bovine Serum Albumin, 2.5mM NaH₂PO₄(pH7), 0.5% SDS, 2mM EDTA) and wherein SSC is 0.15M sodium chloride/0.015M sodium citrate, pH7; SDS is sodium dodecyl sulphate; and EDTA is ethylenediaminetetracetic acid.

77-132. (Canceled)

133. (Previously presented) The isolated nucleic acid molecule of claim 56, wherein the fragment has a size selected from the group consisting of at least: 10 nucleotides, 12 nucleotides, 14 nucleotides, 16 nucleotides, 18 nucleotides, 20 nucleotides, 22 nucleotides, 24 nucleotides, 26 nucleotides, 28 nucleotides, 30 nucleotides, 50 nucleotides, 75 nucleotides, 100 nucleotides and 200 nucleotides.

134. (Previously presented) The isolated nucleic acid molecule of claim 56, wherein the isolated nucleic acid molecule encodes a polypeptide which, or a fragment of which, binds a MHC receptor or an antibody.

135-136. (Canceled)

137. (Previously presented) The kit of claim 76, wherein the pair of isolated nucleic acid molecules selectively amplify an isolated nucleic acid molecule comprising a nucleic acid molecule selected from the group consisting of (a) nucleic acid molecules which hybridize under stringent conditions to a molecule consisting of a nucleic acid sequence as set forth as SEQ ID NO:23 and which codes for a cancer associated antigen precursor, (b) nucleic acid molecules that differ from the nucleic acid molecules of (a) in codon sequence due to the degeneracy of the genetic code, and (c) complements of (a) or (b).